

# Razor Walk-Behind Lawn Mower

Owner/Operator Manual Manuel du Propriétaire/Utilisateur





The use of any gasoline exceeding 10% ethanol (E10) or 10% MTBE will void the product warranty. L'utilisation d'une essence contenant plus de 10% d'éthanol (E10) ou de 10% de MTBE annulent la garantie.











**FRENCH** 

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# INTRODUCTION

# THE MANUAL

Before operation of unit, carefully and completely read your manuals. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

All reference to left, right, front, or rear are given from operator sitting in the operation position and facing the direction of forward travel

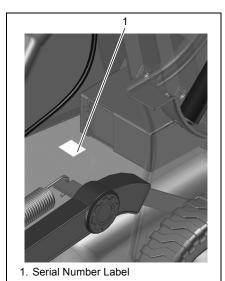
# **ENGINE MANUAL**

The engine on this unit is covered by a separate manual specific to the engine. This manual is included in the literature package that shipped with the unit. Refer to this manual for engine service recommendations. If the engine manual is not available, contact the engine manufacturer for a replacement manual.

# SERVICE AND REPLACEMENT PARTS

When ordering publications, replacement parts, or making service inquiries, know the model and serial numbers of your unit and engine.

Numbers are located on the product registration form in the literature package. They are printed on a serial number label, located on the frame of your unit (Figure 1).



 Record Unit Model and Serial numbers here

Record Engine Model and Serial numbers	

Figure 1

here.

# PRODUCT REGISTRATION

The Ariens dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit

**Customer Note:** If the Dealer does not register your product, please fill out, sign and return the product registration card to Ariens or go to www.ariens.com on the Internet.

# UNAUTHORIZED REPLACEMENT PARTS

Use only Ariens replacement parts. The replacement of any part on this equipment with anything other than a Ariens authorized replacement part may adversely affect the performance, durability, and safety of this unit and may void the warranty. Ariens disclaims liability for any claims or damages, whether regarding warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

**NOTE:** To locate your nearest Ariens Dealer, go to www.ariens.com.

# **DISCLAIMER**

Ariens reserves the right to discontinue, change, and improve its products at any time without public notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit

# **DEALER DELIVERY**

Dealer should:

- 1. Fill out Original Purchaser Registration Card and return the card to Ariens.
- 2. Explain Limited Warranty Policy.
- Explain recommended lubrication and maintenance. Advise customer on adjustments. Instruct customer on controls and operation of unit. Discuss and emphasize the Safety Precautions. Give customer this Owner/Operator and the engine manual. Advise customer to thoroughly read and understand them.

Customer Note: Your Dealer has been provided complete set-up and preparation instructions which must be completed prior to you taking delivery of this unit. The dealer is required to review important information in this manual with you before or upon delivery of the unit or attachment.

# PRACTICES AND LAWS

Practice usual and customary safe working precautions, for the benefit of yourself and others. Understand and follow all safety messages. Be alert to unsafe conditions and the possibility of minor, moderate, or serious injury or death. Learn applicable rules and laws in your area, including those that may restrict the age of the operator.

# REQUIRED OPERATOR TRAINING

Original purchaser of this unit was instructed by the seller on safe and proper operation. If unit is to be used by someone other than original purchaser (loaned, rented or sold), ALWAYS provide this manual and any needed safety training before operation.

# **EMISSION CONTROL SYSTEM**

This equipment and/or its engine may include exhaust and evaporative emissions control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an Ariens Company dealer or an authorized engine manufacturer's service center. Contact your Ariens Company Equipment Retailer concerning emission controls and components.

# SAFETY

Read these safety rules and follow them closely. Failure to follow these rules could lead to loss of control of unit, severe personal injury or death to you or bystanders or result in damage to property or the machine.



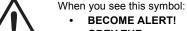
WARNING: This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

# Safety Alert Symbol



These are safety alert symbols. They mean:

- ATTENTION!
- YOUR SAFETY IS INVOLVED!



 OBEY THE MESSAGE!

# SIGNAL WORDS

The safety alert symbols above and signal words below are used on decals and in this manual.

Read and understand all safety messages.

# 1. Danger



DANGER: Indicates an IMMINENTLY HAZARDOUS SITUATION! If not avoided, WILL RESULT in death or serious injury.

## 2. Warning



WARNING: Indicates a
POTENTIALLY HAZARDOUS
SITUATION! If not avoided, COULD
RESULT in death or serious injury.

# 3. Caution



CAUTION: Indicates a
POTENTIALLY HAZARDOUS
SITUATION! If not avoided, MAY
RESULT in minor or moderate
injury. It may also be used to alert
against unsafe practices.

# 4. Notice

**NOTICE:** Indicates information or procedures that are considered important but not hazard related. If not avoided property damage could result.

# 5. Important

**IMPORTANT:** Indicates general reference information worthy of special attention.

## SAFETY DECALS

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

The safety decals on your machine are visual reminders of the important safety information found in this manual. All messages found on your unit must be fully understood and carefully followed. Safety decals found on the machine are explained below.

Always replace missing or damaged safety decals. Replacement decals can be found in the parts manual for your machine and ordered from your dealer.

Refer to Figure 2 for Safety Decal locations.

# 1. Safety Decal Identification



# 2. Safety Decal Description

# 1. DANGER!



DANGER!



Read and understand the operator's manual before operating unit.

# 1.1 Amputation Hazard



To avoid amputation hazard do not put hands or feet near rotating blades.



To avoid amputation hazard do not put hands of feet near moving belts.



Keep hands and feet away from all rotating or moving parts.



Keep all guards and shields in place.

# 1.2 Discharge Hazard



Discharge Hazard – NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Keep children and others away from unit while unit is in operation.



Do not operate mower unless guards are in operating position or entire bagger is attached.

# 1.3 Tipping Hazard



SERIOUS INJURY OR DEATH MAY RESULT FROM MACHINE ROLLOVER

- Failure to follow these instructions could result in serious injury or death
- Do not operate machine on steep slopes or near drop offs
- Avoid sharp and/or quick turns



DO NOT operate on slopes.



Look down and behind before and while moving backward.

# 2. DANGER!



DANGER!



To avoid amputation hazard do not put hands or feet near rotating blades.

# SAFETY RULES

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

The following safety instructions are based on recommendations found in ANSI standard B71.1-2003.

# **Training**

Read, understand, and follow all instructions on the machine and in the manuals before starting.

Be sure the area is clear of bystanders and pets before operating. Stop machine if anyone enters the area.

Improper use of power equipment can cause serous permanent injury or death to the operator or a bystander.

## Understand:

- How to operate all controls
- The functions of all controls
- How to STOP in an Emergency

If the operator or the mechanic cannot read the manual, it is the owner's responsibility to explain it to them.

Always train any inexperienced operators and require them to read and understand all manuals and decals.

Only allow responsible adults, who are familiar with the instructions, to operate this machine.

Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

# **Operator Age**

Do not allow children under the age of 18 to operate any outdoor power equipment.

Local regulations may restrict the age of the operator.

# Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them

Be alert and turn mower off if a child enters the area.

Never allow children to operate the machine.

Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.

# Personal Protection

DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.

Wear adequate outer garments.

Wear adequate safety gear and protective gloves.

Do not operate machine barefooted or while wearing sandals. Always wear substantial footwear

Always wear eye and ear protection when operating machine.

# **Before Operating**

Keep all nuts and bolts tight to be sure the equipment is in safe working condition.

Maintain the machine to be in compliance with the maintenance schedule.

Clean grass and debris from unit, especially from around muffler and engine, to help prevent fires.

Inspect unit before each use for missing or damaged decals and shields, correctly operating safety interlock system, and deterioration of grass catchers. Replace or repair as needed.

Ensure safety interlock system is functioning properly. Do not operate unit if safety interlock is damaged or disabled.

Never tamper with safety devices. Check their proper operation regularly.

Keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris.

# Operation

Engine/blade control feature on mower stops engine and blade within 5 seconds whenever operator releases PTO lever. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust or have it repaired before using unit.

Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.

Never operate machine in a closed or poorly ventilated area.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.

This product is equipped with an internal combustion type engine. DO NOT use unit on or near any unimproved, forest-covered or brush covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if it is used, must be maintained in effective working order by operator.

Do not operate machine while under the influence of alcohol or drugs.

Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.

DO NOT touch parts which are hot. Allow parts to cool.

Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.

Always keep hands and feet away from all pinch points.

Never operate mower in wet grass. Always be sure of your footing; walk; never run.

Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.

Disengage the drive system, if so equipped, before starting the engine (motor).

If the machine should start to vibrate abnormally, stop the engine (motor) and check for the cause immediately. Vibration is generally a warning of trouble.

Keep safety devices or guards in place and functioning properly. Never modify or remove safety devices.

Do not pull machine backward unless absolutely necessary. Always look down and behind before and while moving backward.

Stop engine before removing grass catcher or unclogging chute.

If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

Never leave a running machine unattended.

Stop the engine (motor) and wait until the blade(s) comes to a complete stop before cleaning the machine, removing grass catcher, or unclogging the discharge guard.

On self-propelled models, wheel drive must be disengaged when starting engine.

On self-propelled models, releasing wheel drive control must stop mower's forward movement. If this feature fails to operate, disconnect spark plug wire and repair before using unit.

# **Operating Conditions**

Watch for traffic when operating near or crossing roadways.

Clear the area of objects such as rocks, wire, toys, etc., which could be thrown by the blades.

Use care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

Dust, smoke, fog, etc. can reduce vision and cause an accident.

Operate machine only in daylight or good artificial light.

# Slope Operation

Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you feel uneasy on it, do not mow it.

Mow across slopes, never up and down. Exercise caution when changing direction on slopes.

Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause a slop and fall accident. Tall grass can hide obstacles.

Do not mow wet grass or excessive steep slopes. Poor footing could cause a slip and fall accident.

DO NOT operate near drop-offs, ditches, or embankments. You could lose your footing or balance.

# Fuel

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

Ethanol blends must not exceed E10. Higher ethanol content may cause your machine to run hotter and damage your engine.

Replace fuel cap securely and clean up spilled fuel before starting engine.

Extinguish all cigarettes, cigars, pipes, and other sources of ignition.

Use only an approved gasoline container.

Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water or space heater or other appliances.

Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

Never fuel the machine indoors.

Never remove gas cap or add fuel with the engine running. Allow engine to cool before fueling.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use only an approved gasoline container with an appropriately sized dispensing spout.

NO smoking, NO sparks, NO flames.

Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until the fueling is complete. Do not use a nozzle lock-open device.

Never overfill fuel tank. Replace gas cap and tighten securely.

If fuel is spilled on clothing, change clothing immediately.

## Accessories

Check grass catcher components and the discharge guard frequently nad replace with the manufacturer's recommended parts, when necessary.

Use only Ariens Company-recommended attachments that are appropriate to your use and can be used safely in your application.

## **Batteries**

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

No flames, No sparks, No smoking near battery.

ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.

ALWAYS keep batteries out of reach of children.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

# Service

Maintain or replace safety and instruction labels, as necessary.

Keep unit free of debris. Clean up oil or fuel spills.

Do not change engine governor setting or overspeed the engine.

Never make any adjustments or repairs with the engine (motor) running. \*Disconnect the spark plug wire and ground against engine to prevent unintended starting.

Allow engine to cool before servicing.

Moving parts can cut or amputate fingers or a hand. On multiblade mowers, rotation of one blade will cause all blades to rotate.

Never weld or straighten mower blades.

Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.

# Transporting Unit

Use extra care when loading or unloading the machine onto a truck or into a trailer.

Secure unit chassis to transport vehicle. Never secure from rods or linkages that could be damaged.

Do not transport machine while engine is running.

ALWAYS stop engine and shut off fuel when transporting unit.

# Storage

NEVER store unit with fuel in fuel tank, inside a building where any ignition sources are present.

Keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.

For extended storage, shut off fuel and clean unit thoroughly. See engine manual for proper storage.

# ASSEMBLY



CAUTION: AVOID INJURY. Read and understand the entire Safety section before proceeding.

# **CARTON CONTENTS**

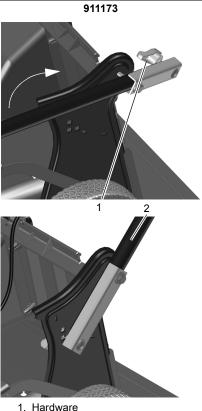


- 1. Side Discharge Chute
- 2. Mulch Plug
- 3. Mower Unit
- 4. Literature Pack
- 5. Grass Bag
- 6. Battery Charger (911179)

Figure 3

# **ASSEMBLY**

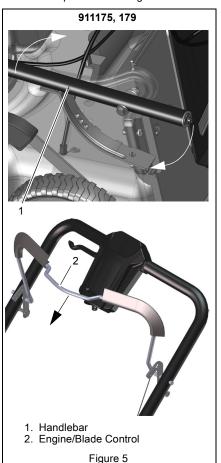
- 1. Remove mower and grass bag from carton.
- 2. 911173: Loosen handlebar mounting hardware. See Figure 4.
- 3. 911173: Rotate handlebar to the desired position and tighten mounting hardware. See Figure 4.



- 2. Handlebar

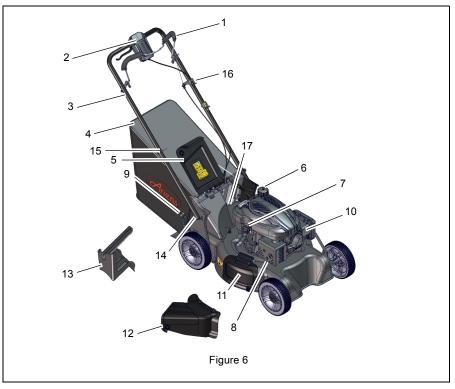
Figure 4

 911175, 179: Pull the handlebar into the upright position. Push the engine/blade control and rotate handlebar to the desired position. See Figure 5.



- 5. Check engine oil level and add if necessary. See engine manual.
- Set up mower for bagging, side discharge or mulching. See MOWER SET-UP on page 15.
- 7. Fill fuel tank. See FILLING FUEL TANK on page 14.
- 8. Connect the battery (911179). See *BATTERY* on page 22.
- 9. Connect spark plug wire.
- 10. Check the engine/blade control feature. Try starting the engine without the engine/blade control held against the handlebar. Engine must not start. If engine starts, stop engine by disconnecting spark plug while wearing gloves. Bring the unit to your dealer for adjustment or repair.

# **CONTROLS AND FEATURES**



- 1. Engine/Blade Control
- 2. Wheel Drive Control (911175, 179)
- 3. Handlebars
- 4. Grass Bag
- 5. Rear Door
- 6. Fuel Tank and Cap
- 7. Oil Fill/Dipstick
- 8. Muffler and Muffler Guard

- 9. Cutting Height Lever
- 10. Air Filter
- 11. Side Discharge Cover
- 12. Side Discharge Chute
- 13. Mulch Plug
- 14. Handlebar Adjustment Holes
- 15. Recoil Starter Handle
- 16. Ignition Switch (911179)
- 17. Battery (911179)

# **OPERATION**

## CONTROLS AND FEATURES

See Figure 6 for locations.



WARNING: Improper operation can lead to injury. Learn what the controls do and how they work. Thoroughly read and understand entire Operator Manual.



**CAUTION:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

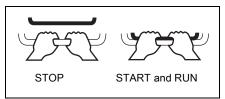
# **Engine/Blade Control**



**CAUTION:** Check function of Engine/Blade Control regularly. Improper function of control could cause injury.

The engine/blade control must be held against the handlebar to start the engine and blade.

Engine/blade control feature stops engine and blade within 3 seconds of operator releasing handlebar. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust or have it repaired before using unit.



# Handlebar

Adjust handlebar to a safe and comfortable height. See *HANDLEBAR HEIGHT* on page 20.

## Recoil Starter Handle

When pulled, handle will turn engine over.

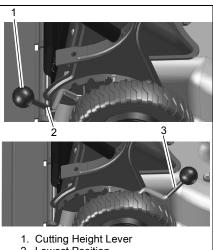
# **CUTTING HEIGHT ADJUSTMENT**



**DANGER:** Avoid injury from rotating blade. ALWAYS shut off engine before adjusting cutting height.

Cutting Height Settings Chart			
Notch	Cut grass length		
1	1" (25 mm)		
2	1-1/2" (38 mm)		
3	2" (51 mm)		
4	2-1/2" (64 mm)		
5	3" (76 mm)		
6	3-1/2" (89 mm)		
7	4" (102 mm)		

To change cutting height, move cutting height levers one notch at a time to set desired height (Figure 7).



- 2. Lowest Position
- 3. Highest Position

Figure 7

# **OPTIONAL CONTROLS**

Wheel Drive Control (911175, 179)



**CAUTION:** Unit will move forward at engine start if wheel drive control is engaged. ALWAYS release wheel drive control before starting unit.

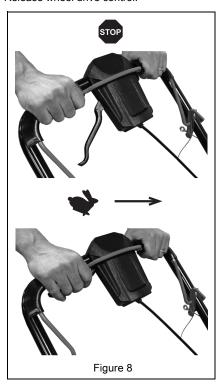
**NOTICE:** Engine must be running for wheel drive to propel unit.

To drive forward:

Slowly squeeze the wheel drive control toward the handlebar until you reach a comfortable ground speed. Hold the wheel drive control against the handlebar for full speed.

To stop:

Release wheel drive control.



# Ignition Switch (911179)





A removable key operates the ignition switch. Turn the key to the start position (2) to start the unit. The key will spring back to the "RUN" position.

RUN Position (1): All controls are operable.

START Position (2): Starter turns over the engine.

# FILLING FUEL TANK

To add fuel to the fuel tank:

- Clean fuel cap and surrounding area to prevent dust, dirt, and debris from entering fuel tank.
- Remove fuel cap.

**IMPORTANT:** Refer to Engine Manual for correct type and grade of fuel.

Fill fuel tank to the bottom of filler neck. See SPECIFICATIONS on page 26 for fuel tank capacity.

IMPORTANT: DO NOT OVERFILL! This equipment and/or its engine may include evaporative emissions control system components, required to meet EPA and/or CARB regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

- 4. Replace fuel cap and tighten.
- 5. ALWAYS clean up spilled fuel.

# MOWER SET-UP



**CAUTION:** DO NOT operate mower unless grass bag, side discharge cover or side discharge deflector is installed. Thrown objects may cause damage or injury. Never operate unit with rear door open unless grass bag is in place.



**CAUTION:** If clog or obstruction prevents grass flow, release engine/blade control and disconnect spark plug wire before attempting to clear any clogs.

# To Bag Clippings



**CAUTION:** Check grass bag frequently for wear or deterioration. Replace worn or damaged bag with Ariens original equipment replacement bag only.

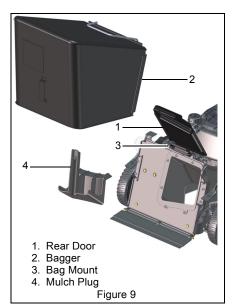
# See Figure 9.

- 1. Shut off unit.
- 2. Make sure mulch cover is closed.
- Lift rear door and remove mulch plug, if necessary.
- 4. Hook grass bag frame onto bag mount. There should be no openings between bagger and mounting surface after installing bag. If necessary, clear debris from bag mounting surfaces.

# **Grass Bag Removal**

- 1. Shut off unit.
- 2. Use handle to lift and remove grass bag.
- 3. Install mulch plug (see Figure 9).
- 4. Close rear door.

**NOTICE:** Empty grass bag and clean mower pan after each use. DO NOT allow grass clumps or a grass coating to collect inside of grass bag or mower pan. Remove grass bag from mower, wash bag with hose and allow to dry.



# To Discharge Clipping to the Side

See Figure 10.

- 1. Shut off unit.
  - 2. Remove grass bag.
  - Lift rear door and install mulch plug (see Figure 9). Make sure lock snaps in place.
  - Make sure the mulch plug is locked by pulling on the handle near the bottom of the plug.
  - 5. Open the mulch cover.
  - Align side discharge chute onto the mower tabs. Make sure chute covers discharge opening.
  - 7. Rest mulch cover on chute to secure.

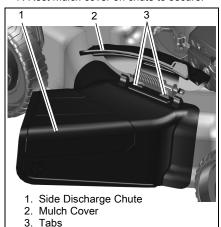


Figure 10

# Side Discharge Chute Removal

See Figure 10.

- 1. Lift mulch cover.
- Lift side discharge chute off of tabs to release from mower and remove chute.

# To Mulch Clippings

See Figure 9 and Figure 10.

- 1. Shut off unit.
- 2. Remove grass bag or side discharge chute, if installed.
- 3. Make sure mulch cover is closed.
- Lift rear door and insert mulch plug. Make sure lock snaps in place. There should be no openings between mulch plug and mounting surface of the deck.
- Close rear door.

**NOTICE:** Rear door must fit tightly against frame.

# **EMERGENCY STOPPING**

To stop the mower in an emergency:

- 1. Release the engine/blade control.
- Release the wheel drive control (selfpropelled models).
- 3. Allow all moving parts to stop before leaving operator's position.

## STARTING AND SHUT OFF



WARNING: Improper operation can lead to injury. Learn what the controls do and how they work. Thoroughly read and understand entire Operator Manual.

See Figure 6 for all Controls and Features. **NOTICE:** Start engine on a level surface that is free of debris.

## Manual Start

- Check each item in the Before Each Use section of the MAINTENANCE SCHEDULE on page 17.
- For engines with a throttle, place throttle control in the mid-throttle position. Once the engine has started, place throttle in the high speed position.
- With engine/blade control held against the handlebar, grasp starter handle and pull rope slowly until it pulls harder. This is the compression stroke. Let rope rewind slowly.
- Pull rope with rapid continuous full arm stroke to start engine. Allow rope to rewind slowly.

**IMPORTANT:** DO NOT let starter handle snap against bracket.

5. Repeat steps 4 and 6 until engine starts.
(If engine does not start, see
TROUBLESHOOTING on page 24.)

# Electric Start (911179)

Recoil may also be used to start the engine (see *Manual Start* on page 16).

**IMPORTANT:** DO NOT start engine while the charger is connected to wiring harness.

 Check each item in the Before Each Use section of the MAINTENANCE SCHEDULE on page 17.

**NOTICE:** It is not necessary to prime or choke a warm engine.

With engine/blade control held against the handlebar, turn the key to "Start" position to crank engine and release key when engine starts.

**IMPORTANT:** Do not run starter continuously for more than fifteen seconds. If the engine does not start after several attempts, refer to *TROUBLESHOOTING* on page 24.

## Shut Off

- Release wheel drive control and allow unit to stop completely (self-propelled models).
- 2. Release engine/blade control.
- 911179Turn key to off position and then remove key.

# Mowing Tips

Cut grass when it is dry.

Keep mower blades sharp.

Do not set cutting height too low. For tall grass, mow twice.

Do not mow too fast.

Mow with engine at full throttle. Discharge clippings into areas already cut.

Vary cutting pattern with each mowing.

**NOTICE:** To prevent dirt and grass from collecting on mower pan, avoid operating over bare ground with only patches of grass.

# Mulching Tips

For best mulching performance, cut no more than 1 inch (2.54 cm) of grass per cutting.

# **MAINTENANCE**



**CAUTION:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

Ariens Dealers will provide any service, parts or adjustments which may be required to keep your unit operating at peak efficiency. Should engine require service, contact an Ariens Dealer or an authorized engine manufacturer's service center.

# MAINTENANCE SCHEDULE

**NOTICE:** Some working conditions (heavy loads, high ambient temperatures, dusty conditions, or airborne debris) may require more frequent service.

See engine manual for further maintenance and troubleshooting information.

#### **MAINTENANCE** SCHEDUI F Before 25 100 Service Performed Each $\overline{x}$ ೱ Use Check Engine/Blade Control Check Wheel Drive Control Check Grass Bag Clean Unit Check Engine Oil Check Mower Blade Check Drive Belt Check Fasteners Check Air Cleaner Change Engine Oil ٠\* General Lubrication . Check Spark Plug Check Engine Cooling Check Muffler

\* After first 5 Hours of operation.

# CHECK ENGINE/BLADE CONTROL

The engine and blade must stop within 3 seconds after releasing the control. If the engine and blade continue to run, adjust or repair control immediately.

# **CHECK WHEEL DRIVE CONTROL**

The unit must stop quickly and completely when the control is released. Adjust or repair if necessary. See WHEEL DRIVE CONTROL ADJUSTMENT on page 23.

# **CHECK GRASS BAG**

Check grass bag frequently for wear or deterioration. Replace worn or damaged bag with Ariens original equipment replacement bag only.

# **CLEAN UNIT**

Before each use clean unit, muffler and engine surfaces of debris, oil or fuel spills to ensure proper cooling and prevent fires.

Clean unit of all dirt and debris. Do not use solvents, hard cleaners, or abrasives.

**NOTICE:** Protect painted surfaces with automotive type wax.

**IMPORTANT:** Do not spray the unit with water, especially when the unit is warm from operation.

# **CHECK ENGINE OIL**

**IMPORTANT:** Maintain proper oil level at all times or engine damage will result.

Check the level of the engine crankcase oil before each use.

Make sure engine is level when checking oil. See engine manual for instructions.

# **CHECK MOWER BLADE**

See Figure 11.

Check blade mounting: blade must be secure and bolt torqued to 37.5 – 50 lbf-ft (51 – 68 N•m) (bolt should fully compress lock washer).

Check blade for nicks and dull cutting edges. Sharpen if necessary.

Check blade for rounded or broken ends, thinned metal or other damage. Replace if necessary.



**CAUTION:** Mower blades are sharp and can cut you. Wrap the blades or wear gloves, and use extra caution when servicing them.

#### To remove blade:

- 1. Stop engine, wait for all moving parts to stop, and disconnect spark plug wire.
- 2. Block blade to prevent rotation.
- 3. Remove bolt, lock washer, flat washer and blade from shaft.

## To install blade:

- Replace blade, flat washer, lock washer and bolt on shaft.
- Torque bolt to 37.5 50 lbf-ft (51 68 N•m) (bolt should fully compress lock washer).
- Connect spark plug wire.

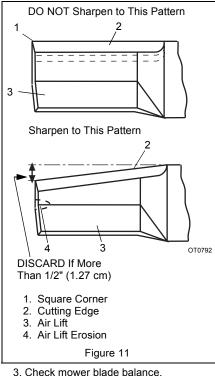
# Sharpen the Mower Blades



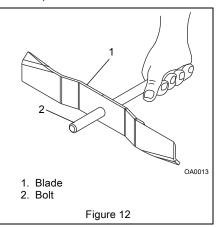
**CAUTION:** DO NOT sharpen mower blades while on unit. An imbalanced mower blade will cause excessive vibration and eventual damage to unit. Check mower blade balance before reinstalling blades.

NEVER weld or straighten bent blades.

- Remove mower blade from unit.
   Discard mower blade if:
  - More than 1/2" (1.27 cm) of metal is removed.
  - · Air lifts become eroded.
  - · Blade is bent or broken.
  - Sharpen mower blade by removing an equal amount of material from each end of mower blade. DO NOT change angle of cutting edge or round the corner of the mower blade



- 3. Check mower blade balance.
  Slide mower blade on an unthreaded bolt. A balanced blade should remain in a horizontal position. If either end of mower blade moves downward, sharpen the heavy end until blade is balanced (Figure 12).
- Install mower blade on unit.
- 5. Torque bolt to 37.5 50 lbf-ft (51 68 N•m).



# **CHECK DRIVE BELT**

(911175, 179)

Check drive belt and replace if worn or damaged. See DRIVE BELT REPLACEMENT on page 21.

# **CHECK FASTENERS**

Check all fasteners for proper tightness. Pay special attention to blade hardware and all guards, shields and safety devices.

# **CHECK AIR CLEANER**

See engine manual for specific information.

**NOTICE:** Cutting height must be set to lowest position to remove air cleaner cover. See Figure 7.

# **CHANGE ENGINE OIL**

**IMPORTANT:** Change engine crankcase oil after first five (5) hours of operation. Then change oil after every 25 hours of operation. Refer to engine manual for instructions and proper oil type.

**NOTICE:** User must lean mower on side to drain oil from dipstick tube.

**IMPORTANT:** Proper oil level must be maintained at all times or engine damage will result. DO NOT overfill. Be sure engine is level when adding oil.

## **GENERAL LUBRICATION**

NOTICE: The mower transmission is lubricated and sealed at the factory. It should need no routine lubrication. If the transmission leaks grease, bring the mower to your local Ariens dealer for repair.

# CHECK SPARK PLUG

Spark plug should be replaced every 100 hours of operation or each year.

**NOTICE:** Loose spark plug wire terminals can cause sparking. Replace terminal if damaged.

# **CHECK ENGINE COOLING**



WARNING: HOT SURFACES can cause death or serious injury. DO NOT TOUCH parts which are hot from operation. ALWAYS allow parts to cool.

To prevent overheating, air must circulate freely around the cooling fins, cylinder head and block.

Every 100 hours of operation or yearly (more often if conditions require) remove blower housing and clean cooling fins. See engine manual for instructions

# **CHECK MUFFLER**

Check muffler for debris, cracks, wear, or other damage.



**CAUTION:** Replace damaged muffler immediately. Continued use could result in fire or explosion.

# SERVICE AND ADJUSTMENTS



**CAUTION:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

# SERVICE POSITION

Put unit into service position for easy access to bottom of deck.



**CAUTION:** Avoid fuel spills. Follow steps below to help prevent fuel spills. If fuel leaks into air cleaner, replace air cleaner. ALWAYS clean up any spilled fuel.

- 1. Place unit on a flat, level surface.
- 2. Disconnect spark plug wire.
- 3. Remove fuel cap.
- Place a piece of plastic bag over the opening and tighten cap securely.
- 5. Remove discharge chute if installed.
- Tip unit onto right side.
   Make sure unit is secure and will not tip over.

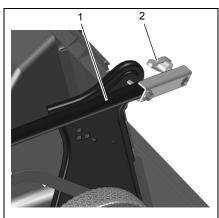
**IMPORTANT:** Remove plastic from fuel cap after unit is upright and service is complete.

# HANDLEBAR HEIGHT (911173)

To adjust (Figure 13):

- Remove hardware from lower handlebar mounting hole.
- Rotate the handlebar to the desired position and align the mounting holes with the holes in the handlebar upright.
- 3. Secure handlebar with hardware removed in step 1.

**NOTICE:** To fold handlebar flat for storage, remove the hardware from the lower handlebar mounting holes, rotate the handlebar forward, and then tighten the hardware in the holes on the handlebar.



- 1. Handlebar
- 2. Mounting Hardware

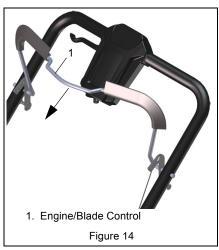
Figure 13

# **HANDLEBAR HEIGHT** (911175, 179)

To adjust (Figure 14):

 Push the engine/blade control forward slightly and rotate handlebar to the desired position.

**NOTICE:** To fold handlebar flat for storage, push the engine/blade control forward slightly and rotate handlebar forward and down toward mower frame.



# DRIVE BELT REPLACEMENT (911175, 179)

# To Remove Drive Belt:

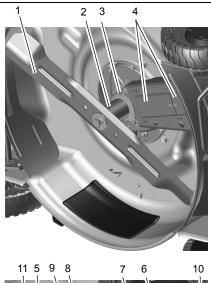
- 1. Disconnect spark plug wire.
- 2. Move cable adjuster to loosen wheel drive cable.
- 3. Disconnect the drive cable spring from the transmission bracket. See Figure 15.

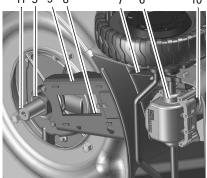


- 1. Drive Cable Spring
- 2. Transmission Bracket

Figure 15

- 4. Remove blade and blade adapter from the crankshaft.
- 5. Remove drive pulley guide, belt channel guides and engine pulley with key.
- 6. Pull belt over end of crankshaft to allow belt to slide out through belt channel.
- Rotate transmission backward to remove hardware, then adjust to loosen belt.
- Remove belt and pull through the belt channel. See Figure 16.





- 1. Blade
- 2. Blade Adapter
- 3. Drive Pulley Guide
- 4. Belt Channel Guides
- 5. Engine Pulley with Key
- 6. Transmission
- 7. Transmission Bracket
- 8. Belt
- 9. Belt Channel
- 10. Transmission Pulley
- 11. Crankshaft

Figure 16

# Install Drive Belt

See Figure 16.

- 1. Route new belt through belt channel.
- Route belt around transmission pulley and reinstall transmission bracket and hardware. Rotate transmission back into location. Loop belt over crankshaft end. Install engine pulley with key.
- 3. Install belt channel guides and drive pulley guide.
- Install blade adapter and blade. Make sure the blade hardware is tightened to the proper torque. See *To install blade*: on page 18.
- Connect the wheel drive cable spring to the transmission bracket and rotate drive cable adjuster to properly adjust drive cable See WHEEL DRIVE CONTROL ADJUSTMENT on page 23. See Figure 15.
- 6. Connect spark plug wire.

# ENGINE/BLADE CONTROL ADJUSTMENT

**NOTICE:** The engine/blade control has no user serviceable adjustments. If releasing the engine/blade control does not stop the engine or blade within 3 seconds, take the unit to an authorized Ariens dealer for repairs.

# BATTERY (911179)



**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.



WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

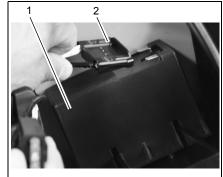
**NOTICE:** Unit comes equipped with a maintenance-free battery that requires no regular maintenance except charging and cleaning the terminals.

# Remove Battery from Unit

- 1.Disconnect harness.
- 2.Remove battery cover and battery. Save mounting hardware for installation.

# Install Battery on Unit

- Insert battery and route wire harness through battery cover.
- Align holes on battery cover and bag mount; secure with previously removed hardware.
- 3. Connect harness (Figure 17).



- 1. Battery Cover
- Wire Harness

Figure 17

# Charge Battery

NOTICE: Engine does not charge the battery. Battery will require periodic charging to ensure proper starting. It is recommended to charge battery on a monthly basis for 6 hours even if mower is not used.

**IMPORTANT:** DO NOT attempt to jump start mower.

**IMPORTANT:** DO NOT start engine while the charger is connected to wiring harness.

- 1. Connect battery charger to the wiring harness. See Figure 17.
- 2.Plug charger into 120 VAC outlet.

**IMPORTANT:** Battery charger supplied with unit is for 120 volt Alternating Current (AC) outlets only.

3.Charge for 16 - 24 hours.

**IMPORTANT:** DO NOT overcharge battery. Disconnect battery after 24 hours.

Connect battery charger here.



Figure 18

# WHEEL DRIVE CONTROL ADJUSTMENT

(911175, 179)

See Figure 19.

**NOTICE:** The unit should stop immediately when the wheel drive control is released, and the unit should not creep forward when the wheel drive control is disengaged with the engine running. The unit's forward speed should increase as the wheel drive control gets closer to the handlebar.

If the unit creeps, decrease traction and speed. If the unit does not accelerate smoothly or seems to slip under load, increase the traction and speed.

**NOTICE:** Before adjusting the wheel drive cable, first make sure the area around the drive components is free of dirt or debris that could prevent the transmission from engaging or disengaging properly, and then make sure the return spring is connected properly to the transmission bracket.

Adjust the wheel drive by adjusting the cable on the handlebar.

**IMPORTANT:** DO NOT adjust the cable so the transmission does not return to neutral and stop the unit when the wheel drive control is released.

# **Check The Adjustment**

- Start the engine and slowly squeeze the wheel drive control against the handlebar and then release the wheel drive control.
- The unit should move forward as you squeeze the wheel drive control and then stop immediately and not creep forward when you release it.

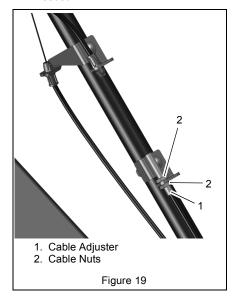
# To Adjust:

- 1. Loosen cable nuts away from bracket.
- 2. Move the wheel drive cable adjuster up or down the handlebar. See Figure 19.

To increase traction and speed, move the cable adjuster down the handlebar.

To decrease traction and speed, move the cable adjuster up the handlebar.

Check the adjustment and alter as needed.



# **STORAGE**



**CAUTION:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

**IMPORTANT:** NEVER spray unit with highpressure water or store unit outdoors. Store mower in a cool, dry, protected location.

# Cleaning

Allow unit to cool. Clean unit thoroughly with mild soap and low pressure water. Brush off dirt and debris from all surfaces. Touch up all scratched surfaces to prevent rust. Matching touch-up paint is available from your Ariens Dealer. Do not use abrasives, solvents, or harsh cleaners.

# Inspection

Inspect mower and repair or replace worn or damaged parts to avoid delays when beginning use again.

Regularly check all hardware and keep fasteners tight. Know unit is in safe working condition.

# **Grass Bag**

Wash out grass bag and allow to dry before storage. Grass bag may be stored in position on mower.

# **Engine**

Refer to engine manufacturer's recommendations for storage.

# **Fuel System**

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

To treat the fuel system for storage:

- Add fuel stabilizer according to manufacturer's instructions.
- Run engine for at least 10 minutes after adding stabilizer to allow it to reach the carburetor.

NEVER store the engine with fuel in the fuel tank inside of a building with potential sources of ignition.

# **TROUBLESHOOTING**

PROBLEM PROBABLE CAUSE		CORRECTION
Engine will not start	Fuel tank empty or low.	Check fuel level. Fill tank if necessary.
Start	<ol><li>Spark plug wire loose or off.</li></ol>	Check connection.
	Engine/Blade control cable detached, broken, or not adjusted properly.	Check cable. Adjust, repair or replace as necessary.
difficult to mower. (Allow clear clipping		Clear clippings from under mower. (Allow the mower to clear clippings before shutting off engine.)
Poor cut quality 1. Worn blade.		Check blade (see CHECK     MOWER BLADE on     page 18).
	Too much grass is being removed per cutting.	2. Raise cutting height.
	<ol><li>Grass is too wet.</li></ol>	Allow grass to dry.
	4. Mowing speed is too fast.	4. Mow slower.

PROBLEM	PROBABLE CAUSE	CORRECTION
Grass does not disperse evenly	Too much grass is being removed per cutting.      Grass is too wet.	Raise cutting height.      Allow grass to dry.
	3. Mowing speed is too fast.	3. Mow slower.
Mower does not	Grass bag is overfilled.	Empty grass bag and do not allow it to overfill.
bag clippings	2. Mulching plug is installed.	Remove mulching plug.
Wheel drive does not	Wheel drive control not engaged.	Engage wheel drive control.
engage (Self- Propelled	2. Drive belt out of position.	Check drive belt. Adjust as necessary (see CHECK DRIVE BELT on page 19).
models)	3. Drive belt worn or damaged.	<ol> <li>Replace belt (see CHECK DRIVE BELT on page 19).</li> </ol>
	Wheel drive control cable detached or broken.	4. Check wheel drive control cable. Adjust or replace as needed. See CHECK WHEEL DRIVE CONTROL on page 17.
	5. Bearings damaged. 6. Debris in gear set. 7. Drive seems to slip or speed is too slow.	5. Contact your Dealer. 6. Contact your Dealer. 7. See WHEEL DRIVE CONTROL ADJUSTMENT on page 23.

SERVICE PARTS				
Always use genuine Ariens parts to keep your mower running like new.				
Description	Part Number			
Air Filter	21100121 (911173, 175, 179)			
Spark Plug	21100123 (911173, 175, 179)			
Blade	04544400			
Battery	04536800 (911179)			
Battery Charger	04537000 (911179)			
Transmission Belt	07200633 (911175, 179)			

	SPECIFIC	CATIONS	
Model Number	911173	911175	911179
Model	Razor		
Description	Push	Self-Propelled Electric Start	
Length – in. (cm)		70 (177.8)	
Height – in. (cm)		47 (119.4)	
Width – in. (cm)		21.5 (54.6)	
Actual Weight – lbs (kg)	91 (41.3)	94 (42.6)	100 (45.4)
Cutting Width – in. (cm)		21 (53.3)	
Cutting Height – in. (cm)		1 – 4 (2.5 – 10.2)	
Engine, 4 cycle		Ariens	
Max Rotation Speed of Cutting Edge – RPM		3,300	
Governed RPM (May be different from maximum rpm.)	3,200 ± 100		
Displacement Cu. In. (cc)	9.7 (159)		
Cylinder Bore	Cast Iron		
Engine Oil Type	See engine manual.		
Crank Case Capacity – Oz. (Liter)	18 (0.53)		
Oil System	Splash		
Engine Oil Filter	N/A		
Spark Plug Gap – in. (mm)	See engine manual.		
Fuel Type	Unleaded		
Fuel Tank Capacity – qt (Liter)	1.1 (1)		
Air Cleaner	Paper Element		
Starting	Recoil Electric/Recoil		
Variable Speeds – MPH (km/hr)	N/A	0 – 3.2	(0 – 5.1)
Mower Deck	1	4 Gauge – Stamped St	teel
Wheel Diameter – in. (cm)	8.38 (21.3)		



# Consumer Mowing Equipment Limited Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens, Gravely and Countax brand lawn and garden consumer products purchased on or after 1/1/2012 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered "Consumer Use"; equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered "Commercial Use." If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

An authorized Ariens dealer (Ariens brand products), Gravely dealer (Gravely brand products), or Countax dealer (Countax brand products) will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge (labor and parts) to the original purchaser except as noted below.

Warranty Code	Product Group	Warranty Period Consumer Use	Warranty Period Commercial Use
НА	Zoom & ZT Zero-Turn Riders; AMP™ Rider	3 Years	90 Days
HB	Max Zoom & ZT HD Zero-Turn Riders	3 Years	1 Year
HC	Tractors, "961" Series Walk-Behind Mowers	2 Years	90 Days
HD	Classic LM Series Mowers; Wide Area Walk Mowers	3 Years	90 Days
N/A	Service (replacement) Parts	90 Days (no labor)	90 Days (no labor)

## Special Extensions

The chart below details special extensions to this warranty:

Warranty Code	Warranty Exception	Warranty Period	Use	Detail
HA, HB	Mower Deck Shell on Zero-Turn Riders	5 Years	Consumer	3 years parts and labor Additional 2 years parts only
HA, HB	Main Frame on Zero-Turn Riders	5 Years	Consumer	3 years parts and labor Additional 2 years parts only
HA	Batteries for AMP™ Rider	2 Years	Consumer	100% first year; prorated second year

## **Exceptions and Limitations**

The chart below details special exceptions to this warranty:

Warranty Code	Warranty Exception	Warranty Period	Use	Detail
All	Batteries	1 Year	Consumer	Prorated
All	Belts, Muffler, Tires	None	Commercial	These components are not covered when used commercially.
All	Cloth, Plastic, and Rubber Components (Including Belts and Cables)	Maximum 2 Years	All	Warranty is limited to 2 years for consumer use. Except as noted above, these components are covered for defect, not for wear.
All	Engines	See Engine Manufacturer's Warranty	All	Engines are covered by engine manufacturer's warranty. Refer to engine manufacturer's warranty statement.

## **Customer Responsibilities**

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must complete the product registration card in the literature package and return it to the Ariens Company, or register the unit online at www.ariens.com, www.gravely.com, www.countax.com.

To obtain warranty service, the original purchaser must:

· Perform the maintenance and adjustments explained in the owner's manual.



- Promptly notify Ariens or an authorized Ariens, Gravely or Countax service representative of the need for warranty service.
- Transport the product to and from the place of warranty service at owner's expense.
- Have the warranty service performed by an authorized Ariens, Gravely or Countax service representative.

## To Find an Authorized Service Representative:

In the U.S. and Canada:					
Use the dealer locator on our websites: www.ariens.com • www.gravely.com					
Or contact us by mail or by phone:					
In the U.S., Canada, Mexico, Caribbean, Central and South America: In Europe, Asia, Africa or the Middle East: In Australia or New Zealand:					
Ariens Company 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.ariens.com	Countax Ltd, Countax House Great Haseley, Oxfordshire, OX44 7PF Phone: 0800 597 7777 www.countax.com	Ariens Company Building 2 6 Wedgewood Rd. Hallam, Victoria 3803 Australia Phone: (03) 9796 4244 1800 335 489 www.ariens.com.au			

# Exclusions - Items Not Covered by This Warranty

- Parts that are not genuine Ariens, Gravely or Countax service parts are not covered by this warranty and may void the warranty.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by the Ariens Company for use with product(s) identified herein are not covered by this warranty.
- The following maintenance, service and replacement items are not covered by this warranty unless they
  are noted in the Limitations section above: lubricants, spark plugs, oil, oil filters, air filters, fuel filters,
  brake linings, brake arms, brake shoes, skid shoes, scraper blades, shear bolts, mower blades, mower
  vanes, brushes, headlights, light bulbs, knives, cutters.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- Use of gasoline blends exceeding 10% ethanol voids any and all warranties.
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. Ariens Company does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the Ariens Company dealer for warranty
  policies that govern within your country. Rights may vary from country to country and within any one
  country.

# <u>Disclaimer</u>

Ariens Company may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating the Ariens Company to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

# LIMITATION OF REMEDY AND DAMAGES

Ariens Company's liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. Ariens Company shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## **AUSTRALIAN CONSUMER LAW**

The following applies solely to warranties subject to Subsection 102(1) of the Australian Consumer Law: Our goods come with guarantees that cannot be excluded by the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

#### **DISCLAIMER OF FURTHER WARRANTY**

Ariens Company makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to Ariens Company, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from region to region.



# CALIFORNIA AND EPA (UNITED STATES ENVIRONMENTAL PROTECTION AGENCY) EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT

#### YOUR WARRANTY RIGHTS AND OBLIGATIONS

The CARB (California Air Resources Board), the EPA, and Ariens Company are pleased to explain the evaporative emission control system's warranty on your 2012 model year small off-road equipment. In California, new equipment that uses small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Ariens Company must warrant the evaporative emission control system on your small off-road equipment for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your evaporative emission control system may include parts such as: fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated components.

#### MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Ariens Company.

## **OWNER'S WARRANTY RESPONSIBILITIES:**

- As the small off-road equipment owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. Ariens Company recommends that you retain all receipts covering maintenance on your small off-road equipment, but Ariens Company cannot deny warranty solely for the lack of receipts.
- As the small off-road equipment owner, you should however be aware that the Ariens Company may deny you warranty coverage if your evaporative emission control system part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road equipment to an authorized Ariens, Gravely, or Parker service representative as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact Ariens Company Technical Service Center at 1-920-756-4688.

#### **DEFECTS WARRANTY REQUIREMENTS:**

- (a.) The warranty period begins on the date the small off-road equipment is delivered to an ultimate purchaser.
- (b.) General Evaporative Emissions Warranty Coverage. Ariens Company warrants to the ultimate purchaser and any subsequent owner that the evaporative emission control system when installed was:
  - (1.) Designed, built, and equipped so as to conform with all applicable EPA and CARB regulations; and
  - (2.) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.
- (c.) The warranty on evaporative emissions-related parts will be interpreted as follows:
  - (1.) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period defined in subsection (b)(2). If any such part falls during the period of warranty coverage, it must be repaired or replaced by the Ariens Company. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.
  - (2.) Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period defined in subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.

- (3.) Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the Ariens Company. Any such part repaired or replaced under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.
- (4.) Repair or replacement of any warranted part under the warranty provisions of this article must be performed at no charge to the owner at an authorized Ariens, Gravely, or Parker service representative.
- (5.) Notwithstanding the provisions of subsection (4) above, warranty services or repairs must be provided at authorized Ariens, Gravely, or Parker service representatives that are franchised to service the subject small off-road equipment.
- (6.) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at an authorized Ariens, Gravely, or Parker service representative.
- (7.) Throughout the evaporative emission control system's warranty period set out in subsection (b)(2), the Ariens Company must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
- (8.) Manufacturer-approved replacement parts must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer issuing the warranty.
- (9.) The use of any add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this article. The manufacturer issuing the warranty will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.

#### EVAPORATIVE EMISSION WARRANTY PARTS LIST

The following parts are considered emission-related components for evaporative emissions:

- Fuel Tank, Fuel Cap and Tether
- Fuel Line, Fuel Line Fittings, Clamps\*
- Pressure Relief Valves, Control Valves\*
- Control Solenoids\*, Electronic Controls\*
- Vacuum Control Diaphragms\*
- Vacuum Control Diaphragms\*
   Control Cables\*, Control Linkages\*
- Purge Valves
- Vapor Hoses, Liquid/Vapor Separator
- Carbon Canister, Canister Mounting Brackets
- Carburetor Purge Port Connector
- \* As related to the evaporative emission control system

# DISCLAIMER

New equipment sold in the state of California that uses small off-road engines must be exclusively certified and appropriately labeled for sale in California. Some equipment covered by this Owner's Manual my not be certified for sale in California and the presence of the preceding CARB and EPA Warranty Statement does not by its existence indicate which, if any, of the equipment covered by this Owner's Manual may be sold in California

Some equipment covered by this Owner's Manual may have been manufactured prior to certain affectivity dates requiring the inclusion of evaporative emission control systems. Therefore some equipment covered by this Owner's Manual may not include the evaporative emission control systems referred to in the preceding CARB and EPA Warranty Statement.





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The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.